

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number
WO 2005/076432 A1

(51) International Patent Classification⁷: **H02J 7/34**,
H01H 43/00

(21) International Application Number:
PCT/IB2004/003554

(22) International Filing Date:
1 November 2004 (01.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PCT/IB2004/000025
11 January 2004 (11.01.2004) IB

(71) Applicant and

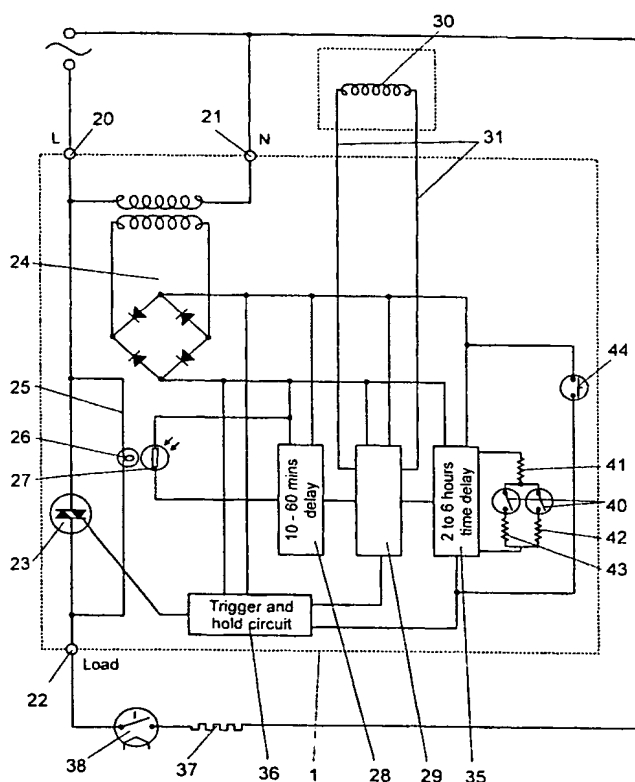
(72) Inventor: VON SEIDEL, Michael [ZA/ZA]; 10 Leccino
Terrace, Bakkershoogte, Somerset West, 7130 Western
Cape Province (ZA).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: SWITCH AND SYSTEM FOR CONTROLLING ELECTRICAL LOADS



(57) Abstract: An electrical switch unit (1, 60, 61, 70) is provided for controlling the supply of electrical energy to an appliance (7, 65) that also has its own electrical control switch (38), in particular a water heater. The switch unit has a normally open load switch operatively closed by a electronic timer means, and a bypass detector circuit (25) is connected in parallel across the load switch so as to become energized when the electrical control switch of a connected appliance is closed. The timer means is operative to become activated consequent on the initiation of current flow through the detector circuit to effect closure of said load switch after a predetermined optionally adjustable time delay (that is independent of real-time), and to maintain the load switch in a closed condition for a time period after which the load switch is returned to its normally open condition. The invention extends to an electrical distribution box including such a switch and the switch may have a current sensor for association with otherwise independent electrical conductors serving other appliances to disable the timer if no other appliance is operative.



Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.